

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1. (Canceled)

Claim 2. (Currently Amended) The eopolymer dewaxing additive according to Claim [[1]] 11, wherein the proportion by weight of the monomer A in the total weight of the copolymer is 0.1-70%.

Claim 3. (Currently Amended) The eopolymer dewaxing additive according to Claim [[1]] 11, wherein at least 50% of the monomers B contain alkyl radicals R⁸ of chain length greater than or equal to C₁₆.

Claim 4. (Currently Amended) The eopolymer dewaxing additive according to Claim [[1]] 11, wherein the monomers of formula A consist of one or more monomers selected from the group consisting of styrene, butyl methacrylate, methyl methacrylate, [[or]] 2-ethylhexyl methacrylate and mixtures thereof.

Claim 5. (Currently Amended) The dewaxing additive according to Claim 11 A polymer mixture comprising one or more eopolymers according to Claim 1, further comprising and one or more further homo- or copolymers which are polyalkyl methacrylates and have alkyl substituents of chain length C₁-C₂₄.

Claim 6. (Currently Amended) The dewaxing additive The polymer mixture according to Claim 5, wherein the further homo- or copolymers which are polyalkyl methacrylates have alkyl substituents of chain length C₁₂-C₁₈.

Claim 7. (Currently Amended) The dewaxing additive The polymer mixture according to Claim 5, wherein [[the]] a ratio of the copolymers and the ~~further~~ homo- or copolymers which are polyalkyl methacrylates is 1:20 to 20:1.

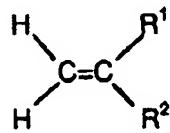
Claim 8. (Currently Amended) The dewaxing additive The polymer mixture according to Claim 5, wherein the ~~further~~-homo- or copolymer is a polyalkyl methacrylate which contains up to 20% by weight of C₁-C₁₀ methacrylates.

Claim 9. (Canceled)

Claim 10. (Canceled)

Claim 11. (Currently Amended) A dewaxing additive, comprising:
~~the copolymer according to Claim 1~~
(i) in polymerized form, the following free-radically polymerizable monomers of
Formulae A and B:

Formula A:



wherein

R¹ = H or CH₃,

R² = phenyl, benzyl, naphthyl, anthranyl, phenanthryl, N-pyrrolidonyl, N-imidazolyl,
2-pyridyl, 4-pyridyl or an alkyl-substituted aromatic substituent or

R² = COOR³ where R³ = H or R³ is a linear or branched alkyl radical of C₁-C₁₀

or

R³ is a heteroatom-substituted radical -(CH₂)_nX where X = OH or X = N(R⁴)₂

wherein n = 1-10 and R⁴ is in each case independently H or R⁴ = C₁-C₄-alkyl

or

R³ is -(CH₂CH₂O)_mR⁵ wherein m = 1-90 and R⁵ = H or R⁵ = C₁-C₁₈ or R³ is a benzyl,

phenyl or cyclohexyl radical

or

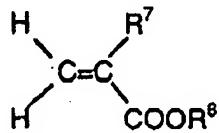
R² = CONHR⁶ wherein R⁶ = H or R⁶ is a linear or branched alkyl radical of C₁-C₁₀

or

R⁶ is a heteroatom-substituted radical -(CH₂)_nX where X = OH or X = N(R⁴)₂

wherein n = 1-10 and R⁴ is in each case independently H or R⁴ = C₁-C₄-alkyl;

Formula B:



wherein R⁷ = H or CH₃ and

R⁸ radical = linear or branched alkyl radicals of C₁₂-C₄₀, and,

optionally further (ii) a customary dewaxing additive additives.

Claim 12. (Currently Amended) The dewaxing additive according to Claim 11,
~~wherein the dewaxing additive which~~ is a solution of the copolymer in an oil of the paraffinic or naphthenic type, or in an organic solvent.

Claim 13. (Previously Presented) The dewaxing additive according to Claim 12,
wherein the organic solvent is toluene, xylene and/or naphtha.

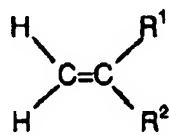
Claim 14. (Currently Amended) A method for solvent deparaffinization of paraffinic mineral oil distillates, comprising:

adding a dewaxing additive according to Claim 11[[],] to said paraffinic mineral oil distillates, to obtain paraffin crystals; and

separating said paraffin crystals; a dewaxing process

wherein said dewaxing additive comprises in polymerized form the following free-radically polymerizable monomers of Formulae A and B:

Formula A:



wherein

R¹ = H or CH₃,

R² = phenyl, benzyl, naphthyl, anthranyl, phenanthryl, N-pyrrolidonyl, N-imidazolyl, 2-pyridyl, 4-pyridyl or an alkyl-substituted aromatic substituent or

R² = COOR³ where R³ = H or R³ is a linear or branched alkyl radical of C₁-C₁₀

or

R³ is a heteroatom-substituted radical -(CH₂)_nX where X = OH or X = N(R⁴)₂

wherein n = 1-10 and R⁴ is in each case independently H or R⁴ = C₁-C₄-alkyl

or

R³ is -(CH₂CH₂O)_mR⁵ wherein m = 1-90 and R⁵ = H or R⁵ = C₁-C₁₈ or R³ is a benzyl, phenyl or cyclohexyl radical

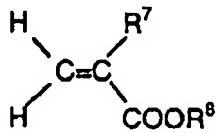
or

R² = CONHR⁶ wherein R⁶ = H or R⁶ is a linear or branched alkyl radical of C₁-C₁₀

or

R⁶ is a heteroatom-substituted radical -(CH₂)_nX where X = OH or X = N(R⁴)₂
wherein n = 1-10 and R⁴ is in each case independently H or R⁴ = C₁-C₄-alkyl;

Formula B:



wherein R⁷ = H or CH₃ and

R⁸ radical = linear or branched alkyl radicals of C₁₂-C₄₀, and,

optionally further customary dewaxing additives.

Claim 15. (Currently Amended) The method according to Claim 14, wherein the addition rate of the copolymer in the dewaxing process is 0.005-0.5%.

Claim 16-20. (Cancelled)

Claim 21. (New) The dewaxing additive according to Claim 11, comprising:
a copolymer of behenyl acrylate and styrene.

Claim 22. (New) The dewaxing additive according to Claim 11, comprising:
a copolymer of behenyl acrylate and at least one member selected from the group consisting of n-butyl methacrylate, isononyl methacrylate, and benzyl methacrylate.

Claim 23. (New) The method according to Claim 14, comprising:
cooling said paraffinic mineral oil distillates to below -20°C, thereby crystallizing said paraffin.

Claim 24. (New) The method according to Claim 14, comprising:
adding a solvent.

Claim 25. (New) The method according to Claim 14, comprising:
adding a solvent to said paraffinic mineral oil distillates, to obtain a solvent-paraffinic
mineral oil mixture;
cooling the solvent-paraffinic mineral oil mixture thereby forming paraffin crystals
which form a filter cake which is porous and permeable to a solvent-mineral oil mixture; and
separating said paraffin crystals from said solvent-mineral oil mixture by filtration.

Claim 26. (New) The method according to Claim 25, wherein said paraffin crystals
grow epitaxially.

Claim 27. (New) The method according to Claim 14, comprising:
adding said dewaxing additive to said paraffinic mineral oil distillates at a temperature
above the cloud point of said mineral oil.

Claim 28. (New) The dewaxing additive according to Claim 11, consisting of:
a copolymer of behenyl acrylate and styrene.

Claim 29. (New) The method according to Claim 14, comprising:
adding said dewaxing additive to said paraffinic mineral oil distillates, to obtain
paraffin crystals;
separating said paraffin crystals; and

obtaining a deparaffinized mineral oil distillates.

Claim 30. (New) The dewaxing additive of Claim 11 which is suitable for solvent deparaffinization of paraffinic mineral oil distillates and which influences the size and shape of paraffin crystals obtained from the paraffinic mineral oil.



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➤ Relevant prior art found, search results used as follows:

- 102 rejection
- 103 rejection
- Cited as being of interest.
- Helped examiner better understand the invention.
- Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- Foreign Patent(s)
- Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art not found:

- Results verified the lack of relevant prior art (helped determine patentability).
- Results were not useful in determining patentability or understanding the invention.

Comments: